

Carbohydrates

Carbohydrates consist of lactose and oligosaccharides.

Human Milk Fact Sheet

**Lactose** has exactly the same Lactose chemical structure in all mammals, making human, cow or goat's CH,OH CH<sub>2</sub>OH lactose all identical! galactose glucose In the great majority of the population, the lactase activity declines from child-hood to adulthood to about 5-10% of the activity at birth Birth

Lactase activity is highest immediately after birth which is very important because milk is the only source of nutrition for an infant<sup>5</sup>

2

Lactase

Lactase

2

Lactase

3

Lactase

2

Lactase

2

Lactase

2

Lactase

2

Lactase

Sequence

Sequ

Lactose intolerance:
gastrointestinal symptoms
caused by incomplete
digestion of lactose

Lactase deficiency:
a decline in lactase activity
in the small intestine, which
leads to incomplete
digestion of lactose

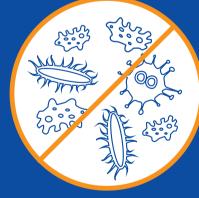
Or complex carbohydrates

Lactose is broken down by an enzyme called lactase

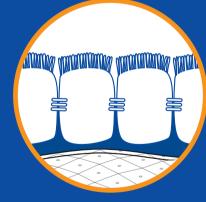
Human milk oligosaccharides (hMOS) are the second largest group of sugars present in breast milk<sup>4,5</sup>



Help develop well-balanced gut microbiota



Protect against pathogens

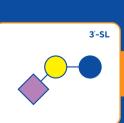


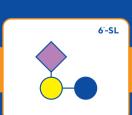
Support maturation of the digestive system

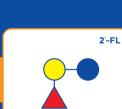


Stimulate maturation of immune system











**Approximately** 

of the total milk

Over
200 different hMOS
have been
identified<sup>12</sup>



**References:** 1: Lawrence & Lawrence 2011. 2: Martinez-Ferez 2006. 3: Koletzko et al. 2005. 4: Bellard & Morrow, 2013. 5: Whitney & Rolfes, 2008. 6: Heyman 2006. 7: Curry 2013 8: Newburg, 2013. 9: Crawley & Westland, 2014. 10: Ayechu-Muruzabal et al. 2018. 11: Bode 2012. 12: Thurl, 2017.

## Disclaimers:

- Ausnutria acknowledges that breastfeeding is the best food for infants aged 0-6 months and supports prolonging breastfeeding up to 24 months (age 2).
- For health care professionals only.

